

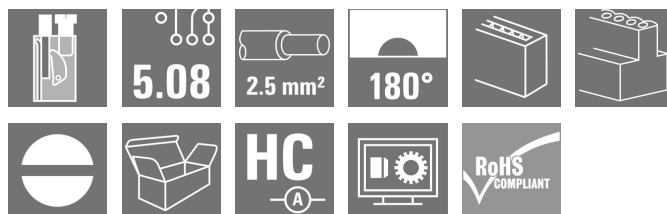
**BLT 5.08HC/24/180 SN BK BX****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image**

Female plugs with TOP screw connection system for connecting wires with straight 180° outlet direction. The female connectors provide space for labelling and can be coded. HC = High Current.

**General ordering data**

|              |   |
|--------------|---|
| Version      | PCB plug-in connector, female plug, 5.08 mm, Number of poles: 24, 180°, TOP connection, Clamping range, max. : 2.5 mm², Box |
| Order No.    | <a href="#">1501710000</a>  |
| Type         | BLT 5.08HC/24/180 SN BK BX  |
| GTIN (EAN)   | 4008190861902   |
| Qty.         | 12 pc(s).   |
| Product data | IEC: 400 V / 27 A / 0.2 - 2.5 mm²<br>UL: 300 V / 17 A / AWG 26 - AWG 14   |
| Packaging    | Box   |

Creation date August 24, 2024 4:54:00 AM CEST

Catalogue status 17.08.2024 / We reserve the right to make technical changes.

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**Technical data****Dimensions and weights**

|            |           |                 |            |
|------------|-----------|-----------------|------------|
| Depth      | 31.8 mm   | Depth (inches)  | 1.252 inch |
| Height     | 12.2 mm   | Height (inches) | 0.48 inch  |
| Width      | 121.92 mm | Width (inches)  | 4.8 inch   |
| Net weight | 74.833 g  |                 |            |

**System Parameters**

|  |                                     |                   |   |
|--|-------------------------------------|-------------------|---|
| Product family                               | OMNIMATE Signal - series BL/SL 5.08 |                   |   |
| Type of connection                           | Field connection                    |                   |   |
| Wire connection method                       | TOP connection                      |                   |   |
| Pitch in mm (P)                              | 5.08 mm                             |                   |   |
| Pitch in inches (P)                          | 0.2 "                               |                   |   |
| Conductor outlet direction                   | 180°                                |                   |   |
| Number of poles                              | 24                                  |                   |   |
| L1 in mm                                     | 116.84 mm                           |                   |   |
| L1 in inches                                 | 4.6 "                               |                   |   |
| Number of rows                               | 1                                   |                   |   |
| Pin series quantity                          | 1                                   |                   |   |
| Rated cross-section                          | 2.5 mm <sup>2</sup>                 |                   |   |
| Touch-safe protection acc. to DIN VDE 57 106 | Safe from finger touch              |                   |   |
| Touch-safe protection acc. to DIN VDE 0470   | IP20 plugged/ IP10 unplugged        |                   |   |
| Protection degree                            | IP20                                |                   |   |
| Volume resistance                            | ≤5 mΩ                               |                   |   |
| Can be coded                                 | Yes                                 |                   |   |
| Stripping length                             | 13 mm                               |                   |   |
| Clamping screw                               | M 2.5                               |                   |   |
| Screwdriver blade                            | 0.6 x 3.5                           |                   |   |
| Screwdriver blade standard                   | DIN 5264                            |                   |   |
| Plugging cycles                              | 25                                  |                   |   |
| Plugging force/pole, max.                    | 8 N                                 |                   |   |
| Pulling force/pole, max.                     | 7 N                                 |                   |   |
| Tightening torque                            | Torque type                         | Wire connection   |   |
|  | Usage information                   | Tightening torque | <div>min. 0.4 Nm</div> <div>max. 0.5 Nm</div> |

**Material data**

|                                       |                            |                                       |        |
|---------------------------------------|----------------------------|---------------------------------------|--------|
| Insulating material                   | PBT                        | Colour                                | black  |
| Colour chart (similar)                | RAL 9011                   | Insulating material group             | IIIa   |
| Comparative Tracking Index (CTI)      | ≥ 200                      | UL 94 flammability rating             | V-0    |
| Contact material                      | Cu-alloy                   | Contact surface                       | tinned |
| Layer structure of plug contact       | 4...8 µm Sn hot-dip tinned | Storage temperature, min.             | -40 °C |
| Storage temperature, max.             | 70 °C                      | Operating temperature, min.           | -50 °C |
| Operating temperature, max.           | 100 °C                     | Temperature range, installation, min. | -25 °C |
| Temperature range, installation, max. | 100 °C                     |                                       |        |

**Conductors suitable for connection**

|   |                      |
|---|----------------------|
| Clamping range, min.                    | 0.13 mm <sup>2</sup> |
| Clamping range, max.                    | 2.5 mm <sup>2</sup>  |
| Wire connection cross section AWG, min. | AWG 26               |

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**Technical data**

|   |  |                              |                             |
|---|--|------------------------------|-----------------------------|
| Wire connection cross section AWG, max.                             | AWG 14   |                              |                             |
| Solid, min. H05(07) V-U   | 0.2 mm <sup>2</sup>  |                              |                             |
| Solid, max. H05(07) V-U   | 2.5 mm <sup>2</sup>  |                              |                             |
| Flexible, min. H05(07) V-K  | 0.2 mm <sup>2</sup>  |                              |                             |
| Flexible, max. H05(07) V-K  | 2.5 mm <sup>2</sup>  |                              |                             |
| w. plastic collar ferrule, DIN 46228 pt 4, 0.2 mm <sup>2</sup> min. |  |                              |                             |
| w. plastic collar ferrule, DIN 46228 pt 4, 1.5 mm <sup>2</sup> max. |  |                              |                             |
| w. wire end ferrule, DIN 46228 pt 1, min.                           | 0.2 mm <sup>2</sup>  |                              |                             |
| w. wire end ferrule, DIN 46228 pt 1, max.                           | 1.5 mm <sup>2</sup>  |                              |                             |
| Plug gauge in accordance with EN 60999 a x b; ø                     | 2.4 mm x 1.5 mm ; 2.4 mm   |                              |                             |
| Clampable conductor   | Cross-section for conductor connection   | Type                         | fine-wired                  |
|   |  | nominal                      | 0.5 mm <sup>2</sup>         |
|   | wire end ferrule   | Stripping length             | nominal 14 mm               |
|   |  | Recommended wire-end ferrule | <a href="#">H0.5/18 OR</a>  |
|   | Cross-section for conductor connection   | Type                         | fine-wired                  |
|   |  | nominal                      | 1 mm <sup>2</sup>           |
|   | wire end ferrule   | Stripping length             | nominal 15 mm               |
|   |  | Recommended wire-end ferrule | <a href="#">H1.0/18 GE</a>  |
|   | Cross-section for conductor connection   | Type                         | fine-wired                  |
|   |  | nominal                      | 1.5 mm <sup>2</sup>         |
|   | wire end ferrule   | Stripping length             | nominal 15 mm               |
|   |  | Recommended wire-end ferrule | <a href="#">H1.5/18D SW</a> |
|   |  | Stripping length             | nominal 12 mm               |
|   |  | Recommended wire-end ferrule | <a href="#">H1.5/12</a>     |
| Reference text  | The outside diameter of the plastic collar should not be larger than the pitch (P), Length of ferrules is to be chosen depending on the product and the rated voltage. |                              |                             |

**Rated data acc. to IEC**

|   |                        |   |                   |
|---|------------------------|---|-------------------|
| tested acc. to standard   | IEC 60664-1, IEC 61984 | Rated current, min. number of poles (Tu=20°C)                         | 27 A              |
| Rated current, max. number of poles (Tu=20°C)                             | 19 A                   | Rated current, min. number of poles (Tu=40°C)                         | 24 A              |
| Rated current, max. number of poles (Tu=40°C)                             | 16 A                   | Rated voltage for surge voltage class / pollution degree II/2         | 400 V             |
| Rated voltage for surge voltage class / pollution degree III/2            | 320 V                  | Rated voltage for surge voltage class / pollution degree III/3        | 250 V             |
| Rated impulse voltage for surge voltage class/ pollution degree II/2      | 4 kV                   | Rated impulse voltage for surge voltage class/ pollution degree III/2 | 4 kV              |
| Rated impulse voltage for surge voltage class/ contamination degree III/3 | 4 kV                   | Short-time withstand current resistance                               | 3 x 1s with 100 A |

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**Technical data****Rated data acc. to CSA**

Institute (CSA)



Certificate No. (CSA)

200039-1121690

|                                   |  |
|-----------------------------------|--|
| Rated voltage (Use group B / CSA) | 300 V  |
| Rated current (Use group B / CSA) | 15 A   |
| Wire cross-section, AWG, min.     | AWG 26   |
| Reference to approval values      | Specifications are maximum values, details - see approval certificate. |

|                                   |        |
|-----------------------------------|--------|
| Rated voltage (Use group D / CSA) | 300 V  |
| Rated current (Use group D / CSA) | 15 A   |
| Wire cross-section, AWG, max.     | AWG 14 |

**Rated data acc. to UL 1059**

Institute (cURus)



Certificate No. (cURus)

E60693

|                                       |  |
|---------------------------------------|--|
| Rated voltage (Use group B / UL 1059) | 300 V  |
| Rated current (Use group B / UL 1059) | 17 A   |
| Wire cross-section, AWG, min.         | AWG 26   |
| Reference to approval values          | Specifications are maximum values, details - see approval certificate. |

|                                       |        |
|---------------------------------------|--------|
| Rated voltage (Use group D / UL 1059) | 300 V  |
| Rated current (Use group D / UL 1059) | 10 A   |
| Wire cross-section, AWG, max.         | AWG 14 |

**Packing**

|           |        |            |        |
|-----------|--------|------------|--------|
| Packaging | Box    | VPE length | 350 mm |
| VPE width | 135 mm | VPE height | 35 mm  |

**Type tests**

|  |            |  |
|--|------------|--|
| Test: Durability of markings                 | Standard   | DIN EN 61984 section 7.3.2 / 09.02 taking pattern from DIN EN 60068-2-70 / 07.96 |
|  | Test       | mark of origin, type of material, date clock                                     |
|  | Evaluation | available  |
|  | Test       | durability   |
| Test: Misengagement (Non-interchangeability) | Evaluation | passed   |
|  | Standard   | DIN EN 61984 section 6.3 and 6.9.1 / 09.02, DIN EN 60512-13-5 / 11.06            |
|  | Test       | 180° turned with coding elements   |
|  | Evaluation | passed   |
|  | Test       | visual examination   |
|  | Evaluation | passed   |

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**Technical data**

|   |                |  |  |
|---|----------------|--|--|
| Test: Clampable cross section                             | Standard       | DIN EN 60999-1 section 7 and 9.1 / 12.00, DIN EN 60947-1 section 8.2.4.5.1 / 12.02 |  |
|   | Conductor type | Type of conductor and solid 0.08 mm <sup>2</sup> conductor cross-section           |  |
|   |                | Type of conductor and stranded 0.08 mm <sup>2</sup> conductor cross-section        |  |
|   |                | Type of conductor and solid 2.5 mm <sup>2</sup> conductor cross-section            |  |
|   |                | Type of conductor and stranded 2.5 mm <sup>2</sup> conductor cross-section         |  |
|   |                | Type of conductor and AWG 26/1 conductor cross-section                             |  |
|   |                | Type of conductor and AWG 26/19 conductor cross-section                            |  |
|   |                | Type of conductor and AWG 14/1 conductor cross-section                             |  |
|   |                | Type of conductor and AWG 14/19 conductor cross-section                            |  |
|   | Evaluation     | passed   |  |
| Test for damage to and accidental loosening of conductors | Standard       | DIN EN 60999-1 section 9.4 / 12.00   |  |
|   | Requirement    | 0.2 kg   |  |
|   | Conductor type | Type of conductor and AWG 28/1 conductor cross-section                             |  |
|   |                | Type of conductor and AWG 26/19 conductor cross-section                            |  |
|   | Evaluation     | passed   |  |
|   | Requirement    | 0.3 kg   |  |
|   | Conductor type | Type of conductor and solid 0.5 mm <sup>2</sup> conductor cross-section            |  |
|   |                | Type of conductor and stranded 0.5 mm <sup>2</sup> conductor cross-section         |  |
|   | Evaluation     | passed   |  |
|   | Requirement    | 0.7 kg   |  |
|   | Conductor type | Type of conductor and solid 2.5 mm <sup>2</sup> conductor cross-section            |  |
|   |                | Type of conductor and stranded 2.5 mm <sup>2</sup> conductor cross-section         |  |
|   |                | Type of conductor and AWG 14/1 conductor cross-section                             |  |
|   |                | Type of conductor and AWG 14/19 conductor cross-section                            |  |
|   | Evaluation     | passed   |  |

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**Technical data**

|               |                |  |
|---------------|----------------|--|
| Pull-out test | Standard       | DIN EN 60999-1 section 9.5 / 12.00   |
|               | Requirement    | ≥5 N   |
|               | Conductor type | Type of conductor and AWG 28/1 conductor cross-section                     |
|               | Evaluation     | passed   |
|               | Requirement    | ≥10 N  |
|               | Conductor type | Type of conductor and AWG 26/19 conductor cross-section                    |
|               | Evaluation     | passed   |
|               | Requirement    | ≥20 N  |
|               | Conductor type | Type of conductor and solid 0.5 mm <sup>2</sup> conductor cross-section    |
|               |                | Type of conductor and stranded 0.5 mm <sup>2</sup> conductor cross-section |
|               | Evaluation     | passed   |
|               | Requirement    | ≥40 N  |
|               | Conductor type | Type of conductor and AWG 14/1 conductor cross-section                     |
|               |                | Type of conductor and AWG 14/19 conductor cross-section                    |
|               | Evaluation     | passed   |
|               | Requirement    | ≥50 N  |
|               | Conductor type | Type of conductor and solid 2.5 mm <sup>2</sup> conductor cross-section    |
|               |                | Type of conductor and stranded 2.5 mm <sup>2</sup> conductor cross-section |
|               | Evaluation     | passed   |

**Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002638    | ETIM 7.0    | EC002638    |
| ETIM 8.0    | EC002638    | ETIM 9.0    | EC002638    |
| ECLASS 9.0  | 27-44-03-09 | ECLASS 9.1  | 27-44-03-09 |
| ECLASS 10.0 | 27-44-03-09 | ECLASS 11.0 | 27-46-02-02 |
| ECLASS 12.0 | 27-46-02-02 | ECLASS 13.0 | 27-46-02-02 |
| ECLASS 14.0 | 27-46-02-02 |             |             |

**Environmental Product Compliance**

|                        |                             |
|------------------------|-----------------------------|
| REACH SVHC             | /                           |
| RoHS Compliance Status | Compliant without exemption |

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Important note**

|                |  |
|----------------|--|
| IPC conformity | Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.   |
| Notes          | <ul style="list-style-type: none"> <li>• Additional variants on request</li> <li>• Gold-plated contact surfaces on request</li> <li>• Rated current related to rated cross-section &amp; min. No. of poles.</li> <li>• Wire end ferrule without plastic collar to DIN 46228/1</li> <li>• Wire end ferrule with plastic collar to DIN 46228/4</li> <li>• Crimp form A for wire end ferrules with PZ 6/5 crimping tool are recommended for the largest cable sizes.</li> <li>• P on drawing = pitch</li> <li>• Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards.</li> <li>• In accordance with IEC 61984, OMNIMATE-connectors are connectors without breaking capacity (COC). During designated use, connectors are not allowed to be engaged or disengaged when live or under load</li> <li>• Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months</li> </ul> |

**Approvals**

Approvals



|                         |            |
|-------------------------|------------|
| ROHS                    | Conform    |
| UL File Number Search   | UL Website |
| Certificate No. (cURus) | E60693     |

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Downloads**

|   |   |
|---|---|
| Approval/Certificate/Document of Conformity | <a href="#">CB Certificate</a>                  |
|   | <a href="#">CB Testreport</a>                   |
|   | <a href="#">Declaration of the Manufacturer</a> |
| Engineering Data                            | <a href="#">CAD data – STEP</a>                 |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>        |
| Brochures                                   | <a href="#">FL DRIVES EN</a>                    |
|   | <a href="#">MB DEVICE MANUF. EN</a>             |
|   | <a href="#">FL DRIVES DE</a>                    |
|   | <a href="#">FL BUILDING SAFETY EN</a>           |
|   | <a href="#">FL APPL LED LIGHTING EN</a>         |
|   | <a href="#">FL INDUSTR.CONTROLS EN</a>          |
|   | <a href="#">FL MACHINE SAFETY EN</a>            |
|   | <a href="#">FL HEATING ELECTR EN</a>            |
|   | <a href="#">FL APPL INVERTER EN</a>             |
|   | <a href="#">FL_BASE_STATION_EN</a>              |
|   | <a href="#">FL ELEVATOR EN</a>                  |
|   | <a href="#">FL POWER SUPPLY EN</a>              |
|   | <a href="#">FL 72H SAMPLE SER EN</a>            |
|   | <a href="#">PO OMNIMATE EN</a>                  |
|   | <a href="#">PO OMNIMATE EN</a>                  |



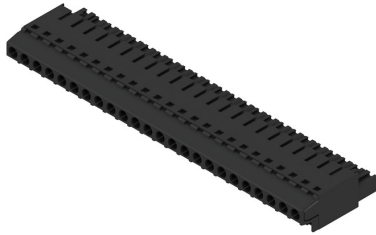
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# Drawings

## Product image

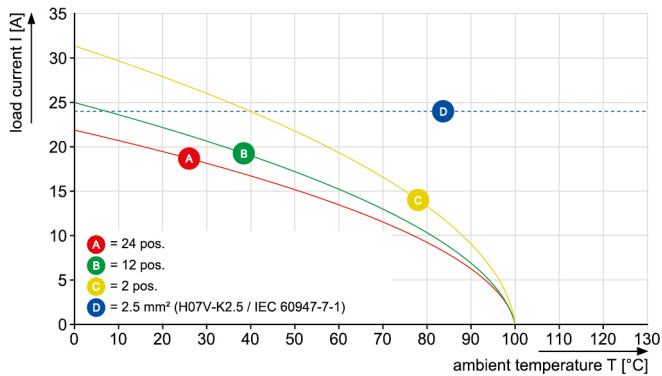


## Dimensional drawing



## Graph

BLT 5.08HC/./180 - SL-SMT 5.08HC/./90



## BLT 5.08HC/24/180 SN BK BX

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## Accessories

## Strain reliefs

**For frequent load changes: the "trailer coupling" for plug-in connectors.**

The strain relief can do more than just relieve the strain on conductors:

Simply clip onto the plug and

- bundle conductors
- guide cables
- use as a connection and disconnection aid

No damage to the connecting points, clear, tidy wiring and easy to handle.

User advantages: permanent heavy-duty connections for harsh industrial environments and convenient operation ensure improved system availability.

## General ordering data

| Type       | BLAT ZE08 OR BX            | Version  | Product data | Packaging |
|------------|----------------------------|--|--------------|-----------|
| Order No.  | <a href="#">1578010000</a> | PCB plug-in connector, Accessories, Strain relief, orange, Number of |              | Box       |
| GTIN (EAN) | 4008190003753              | poles: 8   |              |           |
| Qty.       | 50 pc(s).                  |  |              |           |
| Type       | BLAT ZE04 OR BX            | Version  | Product data | Packaging |
| Order No.  | <a href="#">1577980000</a> | PCB plug-in connector, Accessories, Strain relief, orange, Number of |              | Box       |
| GTIN (EAN) | 4008190078249              | poles: 4   |              |           |
| Qty.       | 50 pc(s).                  |  |              |           |

## Coding elements

**Only connects what is supposed to be connected: the right connection at the right place.**

Coding elements and locking devices clearly assign connecting elements during the manufacturing process and operation

The coding elements and locking devices are inserted prior to assembly or during the cable assembly phase. The Weidmüller alternative: configure online using the variant configurator to precode prior to delivery.

Incorrect assembly on the circuit board and incorrect plugging of connecting elements is no longer possible. The advantage: no troubleshooting during manufacture and no operational errors by the user.

## General ordering data

| Type       | BLZ/SL KO BK BX            | Version  | Product data | Packaging |
|------------|----------------------------|--|--------------|-----------|
| Order No.  | <a href="#">1545710000</a> | PCB plug-in connector, Accessories, Coding element, black, Number  |              | Box       |
| GTIN (EAN) | 4008190087142              | of poles: 1  |              |           |
| Qty.       | 50 pc(s).                  |  |              |           |
| Type       | BLZ/SL KO OR BX            | Version  | Product data | Packaging |
| Order No.  | <a href="#">1573010000</a> | PCB plug-in connector, Accessories, Coding element, orange, Number |              | Box       |
| GTIN (EAN) | 4008190048396              | of poles: 1  |              |           |
| Qty.       | 100 pc(s).                 |  |              |           |

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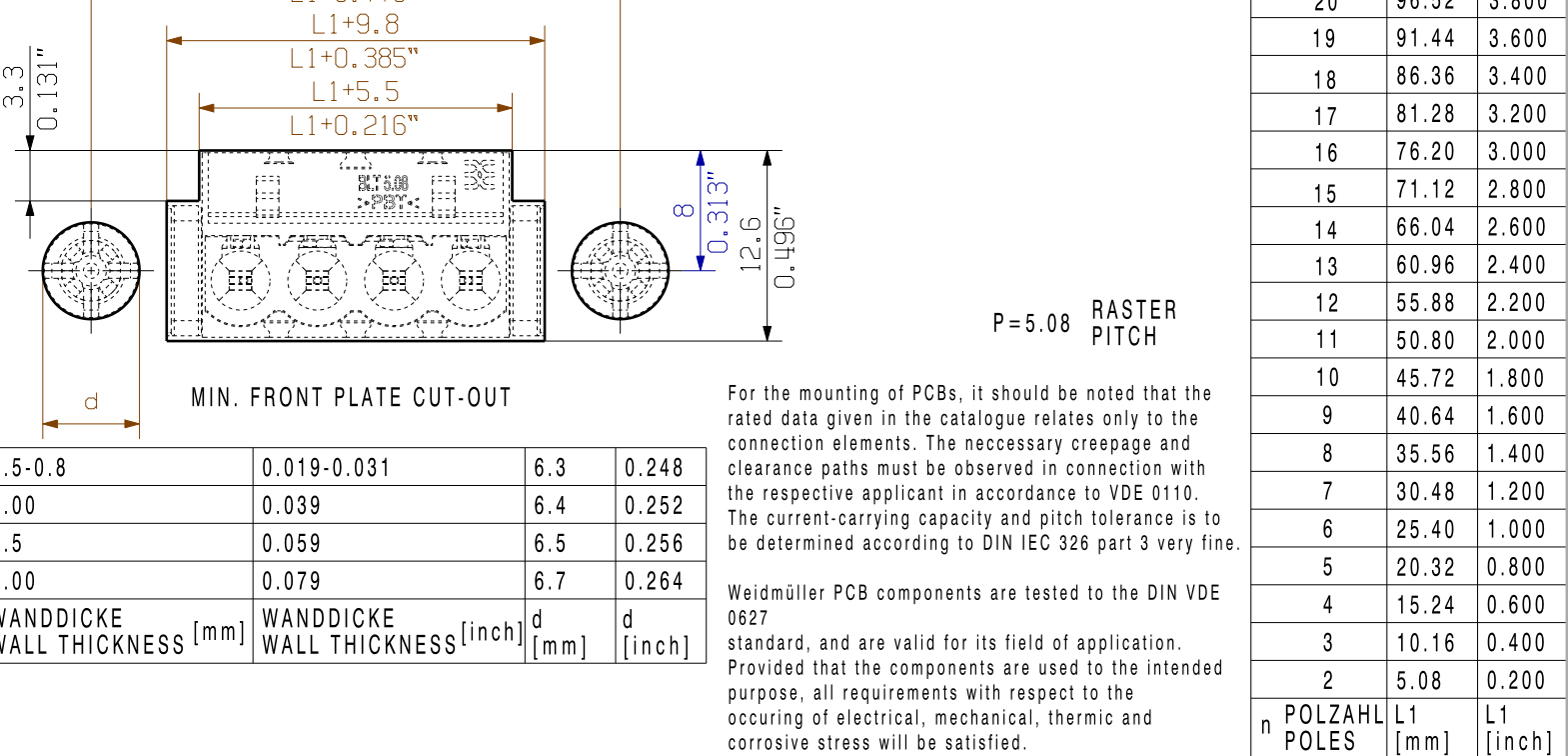
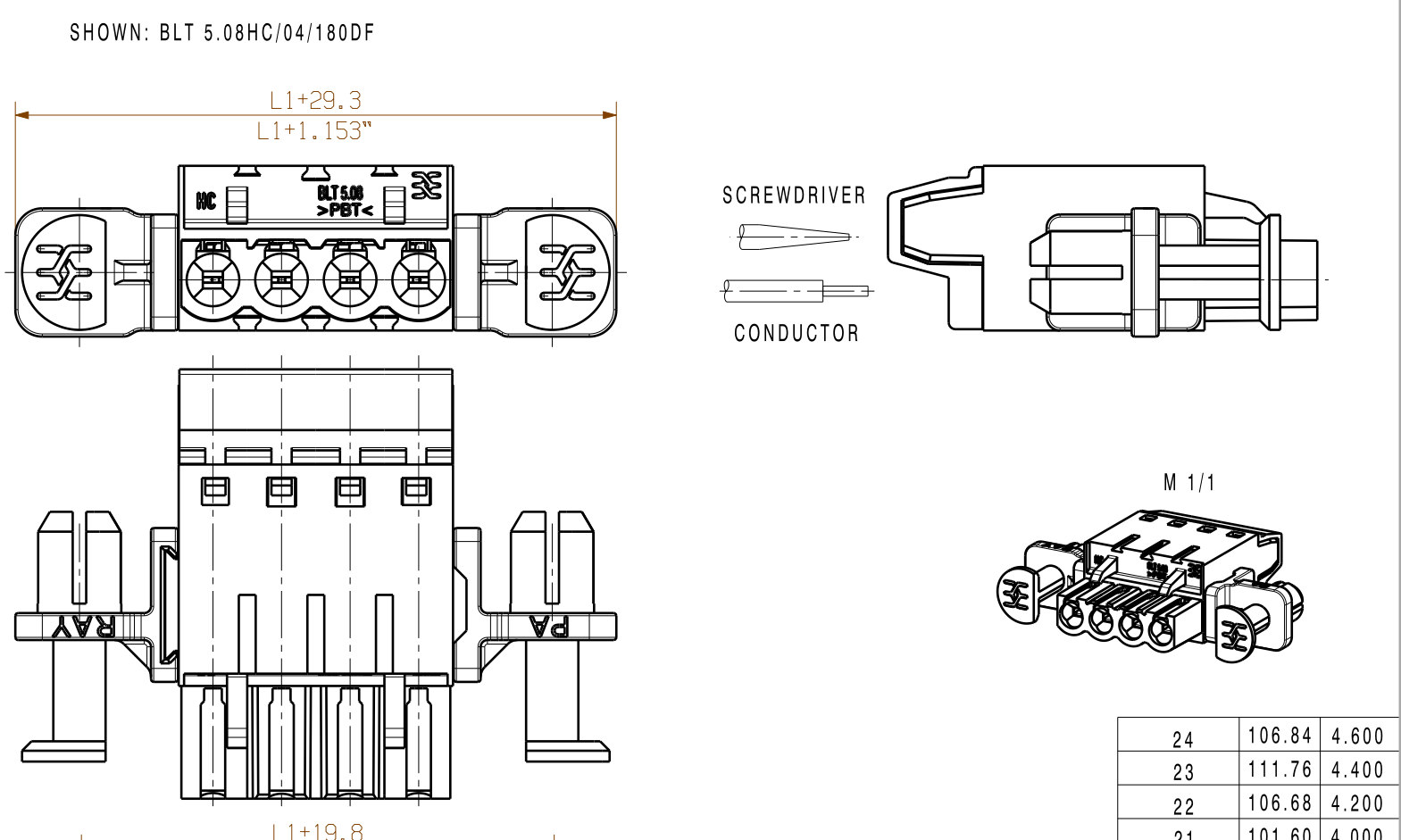
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MASSE OHNE TOLERANZ SIND KEINE PRUEFMASSE  
DIMS. WITHOUT TOLERANCE ARE NOT CONTROL DIMS.

DIE DEUTSCHE VERSION IST VERBINDLICH  
THE GERMAN VERSION IS BINDING



ALLGEMEINGUELTIGE KUNDENZEICHNUNG, AKTUELLER STAND NUR AUF ANFRAGE  
GENERAL CUSTOMER DRAWING, TOPICAL VERSION ONLY IF REQUIRED



GENERAL TOLERANCE:  
DIN ISO 2768-m

70664/4  
24.09.13 HERTEL\_S 01

MODIFICATION

|             | DATE       | NAME      |
|-------------|------------|-----------|
| DRAWN       | 11.06.2003 | KNOTH_G   |
| RESPONSIBLE |            | HERTEL_S  |
| CHECKED     | 24.09.2013 | HERTEL_S  |
| APPROVED    |            | HECKERT_M |

CAT.NO.: .

**Weidmüller**

**C 16018 41**

DRAWING NO. SHEET 01 OF 01 SHEETS

ISSUE NO.

**BLT5.08HC/.../180 ...**  
BUCHSENSTECKER  
FEMALE PLUG

PRODUCT FILE: BLT 5.08

7143